4402.0 - Childhood Education and Care, Australia, June 2014

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Summary

Use of child care

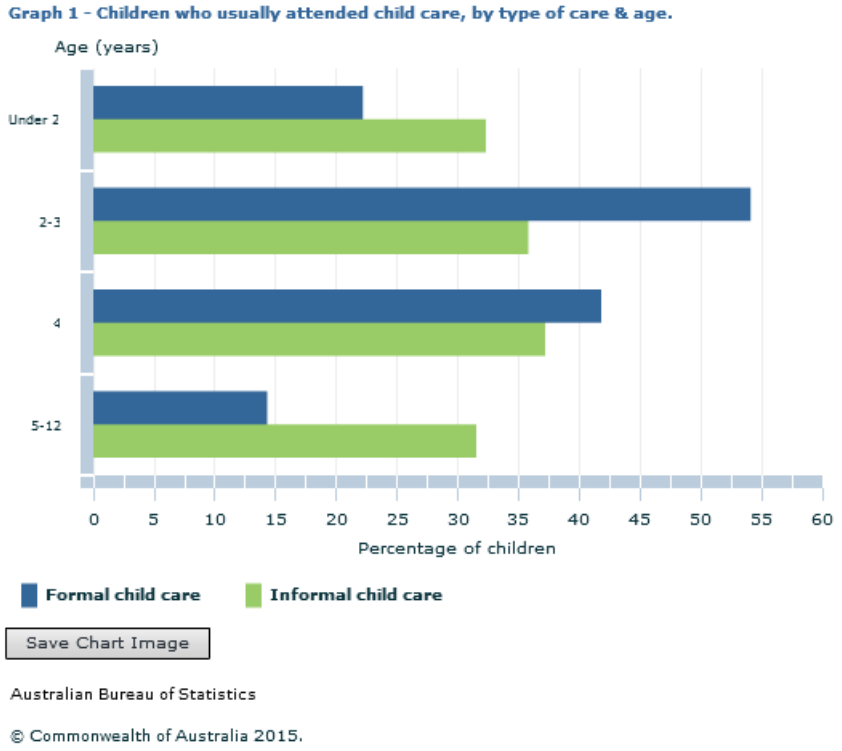
USE OF CHILD CARE

In June 2014, of the 3.8 million children aged 0-12 years, 48% (1.8 million) usually attended some type of child care compared with 52% in 2011. Nearly one quarter (919,400) usually attended formal care and 1.3 million usually attended informal child care. Both of these figures include the 327,800 children who usually attended both formal and informal child care. (Table 1)

USUAL FORMAL AND INFORMAL CHILD CARE

Around one fifth of all children (22%) were usually cared for by their grandparents, while 14% usually attended long day care, and 7.8% attended before and after school care. Family day care was usually attended by 2.5%. (Table 1)

Patterns of formal and informal care use varied by age (Graph 1). Under the age of 2 years, 22% of children usually attended formal child care, while 32% usually attended informal child care. The highest level of overall care attendance was among 2 and 3 year olds, of whom 71% usually attended care. This is comprised of 54% who usually attended formal child care and 36% informal child care. For school aged children (those aged 5 years and over), 14% usually attended formal child care and 32% informal child care. (Table 1 and Graph 1)



Source(s): Childhood Education and Care Survey, Australia, June 2014

COUPLE AND ONE PARENT FAMILIES

The proportion of children aged 0-12 years who usually attended any form of child care was higher in one parent

families (57%) than in couple families (46%). The proportion of children attending formal child care was similar in both family types (24% in couple families, 23% in one parent families). In couple families, 30% of children attended informal child care, compared with 44% of children in one parent families. For children in both family types, grandparents were identified as the most common source of informal child care (22% in couple families, 23% in one parent families). (Table 3)

Work and child care

WORK AND CHILD CARE

USE OF CHILD CARE BY EMPLOYED PARENTS

Of children in couple families in which both parents were employed, 60% (1.1 million) usually attended child care compared with 27% (310,700) in couple families where one parent was employed and 19% (31,700) in couple families where neither parent was employed. In one parent families where the parent was employed, 72% of children (237,200) usually attended child care, compared with 43% (148,900) of those whose parent was not employed. (Table 3)

In families where the youngest child usually attended child care, the proportion of employed female parents generally increased with the age of the youngest child, rising from 69% when the youngest child was aged 2 or 3 years to 86% when the youngest child was aged 9 to 12 years. In comparison, the proportion of employed male parents remained above 90% regardless of the age of the youngest child usually attending care. Similarly in families where the youngest child did not usually attend child care, the proportion of employed male parents generally remained around 88% regardless of the age of the youngest child while the proportion of employed female parents increased significantly when the youngest child was aged 4 or 5 years. (Table 4)

In families with at least one employed parent, the most commonly used work arrangement used by employed male and female parents to allow them to care for their children was flexible working hours (30% for employed male parent, 39% for employed female parent). Employed female parents were significantly more likely to work part-time (38%) compared with employed male parents (5%) while working from home was used by 19% of employed female parents and 14% of employed male parents. Among working female parents, similar proportions in couple families and one parent families used flexible working hours (39%) and part-time work (39% of couple families, 36% of one parent families) to care for their children. (Table 5)

Hours and cost of child care

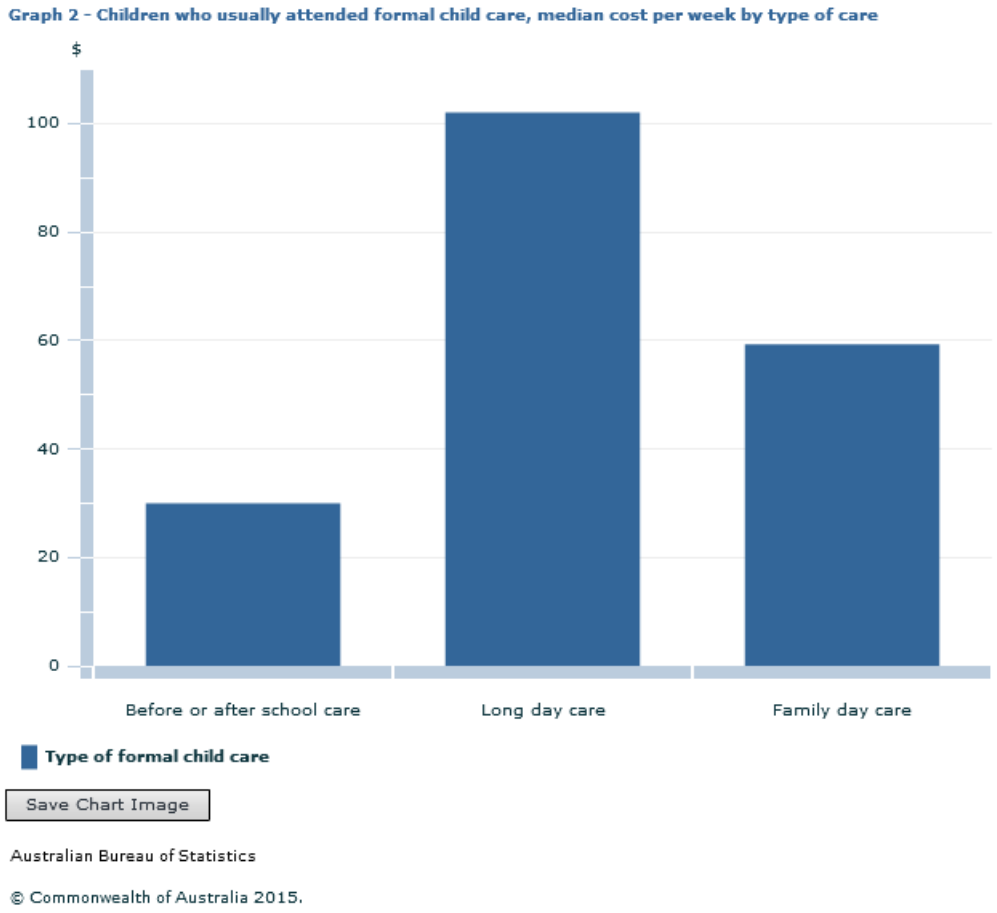
HOURS AND COST OF CHILD CARE

USUAL HOURS OF CHILD CARE

For all children who usually attended any child care, the mean time spent in care was 18 hours per week. The median number of hours was 12 per week. Of those children who usually attended formal child care, 38% (352,600) attended for less than 10 hours per week while 9% (86,400) attended 35 or more hours per week. Of those children who usually attended informal child care, 59% (737,400) attended for less than 10 hours per week while 10% (130,700) attended for 35 hours or more per week. (Table 8)

USUAL NET COST OF CHILD CARE

For the majority of children who usually attended formal child care (56% or 515,100), the usual net cost was less than $100 per week. Long day care costs were typically higher than for other forms of child care, with the median cost at $102 per week (Graph 2). A large majority of children (91% or 1.1 million) who usually attended informal child care did so at no cost. (Table 10) See Explanatory Notes for a description of how cost of child care is estimated.



Source(s): Childhood Education and Care Survey, Australia, June 2014

Need for additional formal care

NEED FOR ADDITIONAL FORMAL CHILD CARE

In June 2014, there were 248,600 children whose parent reported a need for additional formal child care. Of these, almost half (49%) mainly required long day care, and 28% before or after school care. When considering all types of additional formal child care needs reported, the most common reason parents currently required the additional care was for work related purposes (153,300 children). In the majority of cases (67% or 165,900 children) one or two additional days a week of child care was required. (Table 18)

Early childhood education

EARLY CHILDHOOD EDUCATION

ATTENDANCE AT PRESCHOOL OR A PRESCHOOL PROGRAM

Of children aged 4-5 years who do not attend school (360,600), most usually attended a preschool or a preschool program (83%). Of those children who lived in couple families with both parents employed, 88% attended a preschool or preschool program. Three out of four children living in a one parent family attended a preschool or a preschool program regardless of whether the parent was employed (75% attended) or not (76% attended). Of those with one parent employed and the other not employed, 86% attended preschool or a preschool program, while 45% of those with neither parent employed attended. (Table 13) See Appendix for information on interpreting preschool attendance statistics.

Informal learning

INFORMAL LEARNING

A large majority of children participated in some form of informal learning activity with their parents in the reference week. Of the 1.8 million children aged 3-8 years, only 1% did not engage in informal learning activities with their parents, compared with 10% of the 929,300 children aged 0-2 years. Reading activities were the most common type of informal learning in which parents were involved. In the survey reference week, parents read or told stories to 81% of 0-2 year olds, and told stories, read or listened to the reading of 96% of 3-8 year olds. Among 0-2 year olds, other common informal learning activities with parents included musical activities (79%) and watching TV, videos or DVDs (67%). Children aged 3-8 years commonly engaged in watching TV, videos and DVDs (85%) and physical activities (82%) with their parents. (Tables 19 and 20)

About this Release

This publication presents information on children aged 0-12 years and their families. Information presented includes: use of formal and informal care; cost and duration of care; working arrangements used by parents to care for their children; attendance at preschool programs; requirements for additional formal care or preschool; and informal learning.

Please note that the state and territory level and timeseries data cubes previously published under catalogue number 4402.0.55.003 will now be published under this 4402.0 catalogue number.

Timeseries data cubes will be available at the same time as the main data cubes, The state and territory level data cubes will be available by June 2015.

History of Changes

This document was added or updated on 29/04/2015.

26/06/2015 : State and territory summary data cubes have been added.

29/04/2015 : Link to Explanatory Notes updated. No data has been affected by this change.

Explanatory Notes

Explanatory Notes

EXPLANATORY NOTES

INTRODUCTION

1 The statistics in this publication were compiled from data collected in the Childhood Education and Care Survey (CEaCS) that was conducted throughout Australia in June 2014 as a supplement to the Australian Bureau of Statistics (ABS) monthly Labour Force Survey (LFS).

2 The CEaCS collected information on topics including:

- usual care arrangements (types of care, duration and cost)
- care arrangements used in the survey reference week (types of care, duration and cost)
- attendance at a preschool or preschool program (usually or in the survey reference week)
- need for additional formal care or preschool
- early childhood education and learning activities.

3 The main aim of the survey was to provide estimates of:

- care arrangements for children aged 0-12 years
- attendance at educational institutions for children aged 0-12 years
- informal learning activities for children aged 0-8 years
- families' requirements for formal care or preschool
- education, income and working patterns of parents of children aged 0-12 years.

4 The publication Labour Force, Australia (cat. no. 6202.0) contains information about survey design, sample redesign, scope, coverage and population benchmarks relevant to the monthly LFS. It contains definitions of demographic and labour force characteristics, and information about interviewing relevant to both the LFS and supplementary surveys. For more details on changes to the LFS in recent years see Information Paper: Labour Force Sample Design, May 2013 (cat. no. 6269.0).

SCOPE

5 The scope of the 2014 CEaCS was restricted to Australian resident children aged 0-12 years and their families living in private dwellings and excluded:

- any non-residents visiting Australia (diplomatic personnel of overseas governments and their families, members of non-Australian defence forces stationed in Australia, or non-residents otherwise visiting Australia)
- special dwelling type institutionalised persons (e.g. patients in hospitals, residents of homes for persons with disabilities)
- special dwelling type boarding school pupils
- Indigenous communities.

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6 The survey also excluded members of the Australian permanent defence forces. One parent families where the parent was a member of the Australian permanent defence forces and couple families where both parents were members are out of scope. In couple families where one parent was a member of the Australian permanent defence forces, no employment information is available for that parent, but information on the family and the children was obtained from the other resident parent.

7 The survey was conducted in both urban and rural areas in all states and territories but excluded people living in Indigenous Communities. The exclusion of people living in these areas is unlikely to impact on state and territory estimates, except in the Northern Territory where they account for approximately 15% of the total population aged 15–74 years.

COVERAGE

8 The survey coverage excludes persons absent from their usual residence for an extended period. One parent families where the parent was temporarily absent and couple families where both parents were temporarily absent were not enumerated. In couple families where one parent was temporarily absent, no employment information is available for that parent, but information on the family and the children was obtained from the other parent.

Coverage rules

9 The estimates in this publication relate to persons covered by the survey. In the LFS, coverage rules are applied which aim to ensure that each person is associated with only one dwelling, and hence had only one chance of selection in the survey. See Labour Force, Australia (cat. no. 6202.0) for more details.

DATA COLLECTION

10 Interviews were conducted between 8 and 21 June 2014, with some additional follow up of just over 500 outstanding households to increase sample numbers conducted in September 2014. Interviews were conducted with parents of children aged 0-12 years either face-to-face or over the telephone, using computer assisted interviewing (CAI).

11 For interviews conducted between 8 and 14 June 2014, the reference week was 1 to 7 June. For interviews conducted between 15 and 21 June, the reference week was 8 to 14 June. For interviews conducted in September, the reference week was 24 to 30 August 2014.

12 In each selected household, detailed information about child care arrangements and early childhood education was collected for a maximum of two children aged 0-12 years. Information was obtained from an adult who permanently resided in the selected household and was either the child's parent or guardian. In households with more than two children aged 0-12 years, two children were randomly selected from within the same family and the complete set of information was collected for these children. In households with multiple families information was collected for children from only one family. Summary information was collected for other children in the family including the number attending child care and/or preschool and the cost of this care (including any rebates such as the Child Care Benefit).

13 Supplementary surveys are not conducted on the full LFS sample. Since August 1994, the sample for supplementary surveys has been restricted to the first 7 of the 8 months during which a dwelling is enumerated in the LFS (i.e. seven-eighths of the LFS sample).

14 Approximately 83% of selected households were fully responding to CEaCS, resulting in 4,635 household records and 7,126 children records.

ESTIMATION METHOD

15 Weighting is the process of adjusting results from a sample survey to infer results for the total population. To do this, a 'weight' is allocated to each covered sample unit, which for CEaCS can be either person or a household. The weight is a value which indicates how many population units are represented by the sample unit. The first step in calculating weights for each unit is to assign an initial weight, which is the inverse of the probability of being selected in the survey.

Population benchmarks

16 The initial weights were calibrated to align with independent estimates of the population of interest, referred to as 'benchmarks'. Weights calibrated against population benchmarks ensure that the survey estimates conform to the independently estimated distribution of the population rather than the distribution within the sample itself. Calibration to population benchmarks helps to compensate for over or under-enumeration of particular categories of persons/ households which may occur due to either the random nature of sampling or non-response.

17 For person estimates, CEaCS was benchmarked to the Estimated Resident Population (ERP) in each state and territory at 30 June 2014. For household estimates, CEaCS was benchmarked to independently calculated estimates of the total number of households in Australia with children aged under 13 years. CEaCS estimates do not (and are not intended to) match estimates for the total Australian person/household population obtained from other sources.

Estimation

18 Survey estimates of counts of persons or households are obtained by summing the weights of persons or households with the characteristic of interest.

19 To minimise the risk of identifying individuals in aggregate statistics, a technique is used to randomly adjust cell values. This technique is called perturbation. Perturbation involves small random adjustment of the statistics and is considered the most satisfactory technique for avoiding the release of identifiable statistics while maximising the range of information that can be released. These adjustments have a negligible impact on the underlying pattern of the statistics. After perturbation, a given published cell value will be consistent across all tables. However, adding up cell values to derive a total will not necessarily give the same result as published totals. The introduction of perturbation in publications ensures that these statistics are consistent with statistics released via services such as Table Builder.

20 Estimates of mean and median values presented in this publication were not subject to perturbation. Consequently, estimates of mean and median values produced using Table Builder may differ from those presented in this publication.

CHANGES BETWEEN SURVEYS

21 This is the first time that perturbed estimates are being produced for CEaCS.

22 People living in Indigenous communities or in very remote parts of Australia were excluded from CEaCS in 2011 whereas in 2014 only people living in Indigenous communities were excluded.

23 In the 2011 CEaCS some questions about school attendance were only asked of children aged 4 to 8 years. This was changed to 4 to 12 years in 2014 to provide broader information about the age of starting school and educational programs attended prior to school.

24 As was done in 2011, the 2014 CEaCS continued to ask about 'usual' use of each type of care before asking about 'last week'.

25 Questions relating to informal learning alone by the child or with someone else other than their parent or guardian were removed from the 2014 survey.

26 While the amount of rebate available on child care costs has remained the same since 2011, in 2014 parents and guardians were asked extra questions about the Child Care Rebate to determine child care costs. For more information see Child Care Benefit and the Child Care Rebate below.

27 Every 5 years, following the availability of data from the Census of Population and Housing, the ABS reviews the LFS sample design. For more information see Information Paper: Labour Force Sample Design, May 2013 (cat. no. 6269.0).

28 After each Census, population estimates are normally revised back five years to the previous Census year. As announced in the June 2012 issue of Australian Demographic Statistics (cat. no. 3101.0), intercensal error between the 2006 and 2011 Censuses was larger than normal due to improved methodologies used in the 2011 Census Post Enumeration Survey. The intercensal error analysis indicated that previous population estimates for the base Census years were over-counted. An indicative estimate of the size of the over-count is that there should have been 240,000 fewer people at June 2006, 130,000 fewer in 2001 and 70,000 fewer in 1996. As a result, Estimated Resident Population estimates have been revised for the last 20 years rather than the usual five. Consequently, estimates of particular populations derived from CEaCS 2014 may be lower than those published for CEaCS 2011 and previous years as the CEaCS estimates have not been revised. Therefore, comparisons of CEaCS 2014 estimates of the number of children with previous years should not be made. However, for comparable data items, comparison of rates or proportions between years is appropriate.

USING THE DATA

29 To minimise the reporting load on families in CEaCS, parental educational attainment and participation information was only collected from those households entering the LFS in June 2014. For the remaining CEaCS sample in June 2014, parental education data that had been collected in the May 2014 LFS supplementary survey, the Survey of Education and Work, were used in CEaCS. For 5% of parents in CEaCS, education data could not be matched or was otherwise unavailable.

30 Care needs to be taken when comparing the 2014 CEaCS data with other surveys or administrative data, as the CEaCS collects information on usual child care and preschool attendance patterns as well as attendance in the survey reference week at a point in time.

31 Comparisons of CEaCS 2014 estimates of the number of children with previous years should not be made. However, for comparable data items, comparison of rates or proportions between years is appropriate.

32 Information about the working arrangements used by parents to help care for their child was not available for parents who were out of scope of the labour force survey for any reason (see Scope and Coverage above).

CHILD CARE BENEFIT AND THE CHILD CARE REBATE

33 The Child Care Benefit (CCB) was introduced in July 2000 and replaced Child Care Assistance. The CCB is available to families who use approved and registered care.

34 Families using approved child care services can choose to receive their CCB as reduced child care fees (benefit paid direct to provider), quarterly payments direct to parents or as a lump sum payment at the end of the financial year (benefit paid direct to parents).

35 Families who receive the CCB for approved care may also be eligible to receive the Child Care Rebate (CCR) which was introduced in July 2009 and used to calculate the cost of child care in 2011 CEaCS. Prior to 2009, the CCR was known as the Child Care Tax Rebate (CCTR) and in the 2008 CEaCS, this was used to calculate cost of child care. In 2008 the CCTR was 30% of out-of-pocket child care costs while the CCR entitles eligible families to a rebate of up to 50% of out-of-pocket child care costs after the CCB has been applied. For more information on different types of family assistance, see Australian Government Department of Human Services.

36 In July 2011 there was a change to the way families can choose to receive CCR. Families can now choose to receive their CCR as reduced child care fees (benefit paid direct to provider) as well quarterly payments direct to parents or as a lump sum payment at the end of the financial year direct to parents (both previously available).

COST OF CARE

37 Within this publication, cost of care is reported as the net cost of care to the parents after the CCB and CCR have been deducted, estimated based on a number of variables in the CEaCS.

38 Families receive the CCB and CCR in different ways and as a result questions in the 2014 CEaCS asked families to report the cost of child care. This was followed up with subsequent questions asking if the cost was before or after CCB and CCR to accurately calculate the out of pocket expense of child care to the family.

39 In a minority of cases, where parents had claimed or intended to claim the CCB as a lump sum, the amount of CCB has been estimated. The CCB was estimated based on information provided by the Department of Education. The value of the CCB can be calculated using information about: the type of care; the number of hours of care; the standard hourly rate; family income; number of children in the family using child care; whether the child attends school; and for long day care and family day care, whether the care is part-time or full-time.

40 In estimating the CCB for the small number of cases where parents were claiming a lump sum payment, it was assumed that:

- if the parent intended to claim the CCB, then the care provider was eligible (i.e. an approved or registered child care service)
- basic eligibility requirements for the benefit were met (e.g. residency and children's immunisation)
- the parent provided their tax file number to the Family Assistance Office, which enabled them to obtain the CCB above minimum rates (depending upon the parents' income)
- the parent met the CCB work, study, training test, which is required for CCB in relation to registered care and is required for CCB in excess of 24 hours care per week for approved care.

41 The CCR work, study, training test was applied if families received the CCB or were intending to claim the CCB for approved care. The reduction in child care fees was calculated on the out-of-pocket expenses incurred by families for approved care after the CCB. As assumptions were made about families' eligibility for the CCB and CCR, care should be taken when using estimates of cost of care data presented in this publication.

42 In CEaCS 2014, the income brackets used to calculate CCB in the calculation of estimated net cost of care have been indexed up from 2011.

REQUIREMENTS FOR ADDITIONAL FORMAL CHILD CARE AND PRESCHOOL

43 The 2014 CEaCS continued to collect information on whether parents would like their child to attend more formal care or preschool than they were attending at the time of the survey. This includes instances in which children were already attending care or preschool and parents wanted them to attend more, as well as instances in which children did not attend any care or preschool and parents wanted them to attend. It does not include instances in which parents want to change service providers but not type or quantity of service.

44 These measures are not intended to provide an indicator of the number of additional formal care or preschool places required, the 'unmet demand' for formal care or preschool, or the number of children on waiting lists for formal care or preschool. This is because CEaCS cannot capture the likelihood that a parent will take steps to access the care or preschool they require, or place their child in this care or preschool. Various factors including cost, location and the perceived suitability or quality of the service will have an influence on whether parents take these steps.

RELIABILITY OF ESTIMATES

45 All sample surveys are subject to error which can be broadly categorised as either sampling or non-sampling error.

46 Sampling error is the difference between the published estimates, derived from a sample of persons, and the value that would have been produced if the total population (as defined for the scope of the survey) had been included in the survey. For more information refer to the Technical Note.

47 Non-sampling error may occur in any collection, whether it is based on a sample or a full count such as a census. Sources of non-sampling error include non-response, errors in reporting by respondents or recording of answers by interviewers and errors in coding and processing data. Every effort is made to reduce non-sampling error by careful design and testing of the questionnaire, training and supervision of interviewers and extensive editing and quality control procedures at all stages of data processing.

DATA QUALITY

48 Information in this survey is collected in person or by telephone from parents and hence may differ from that

which might be obtained from other sources (such as administrative data) or via other methodologies (such as a paper form). This factor should be considered when interpreting the estimates in this publication. Please see Appendix for a comparison of CEaCS data with administrative data on preschools.

PRODUCTS AND SERVICES

49 This release includes summary results from this survey which were previously available in Childhood Education and Care, Australia Datacubes, June 2011 (cat. no. 4402.0.55.003).

50 The Data cubes present tables of estimates and proportions. The main publication data cube also provides the corresponding Relative Standard Error (RSE) while the summary data cubes provide Margins of Error (MOEs) in addition to the RSEs.

51 For users who wish to undertake more detailed analysis of the data, the survey microdata will be released through the Table Builder product. For further details refer to the Microdata pages on the ABS website.

52 Special tabulations are available on request. Subject to confidentiality and sampling variability constraints, tabulations can be produced from the survey incorporating data items, populations and geographic areas selected to meet individual requirements. These can be provided in printed or electronic form. Note that detailed data can be subject to high relative standard errors which in some cases may result in data being confidentialised.

53 For further information about these or related statistics, contact the National Information and Referral Service on 1300 135 070. The ABS Privacy Policy outlines how the ABS will handle any personal information that you provide to us.

ACKNOWLEDGMENTS

54 ABS publications draw extensively on information provided freely by individuals, businesses, governments and other organisations. Their continued cooperation is very much appreciated; without it, the wide range of statistics published by the ABS would not be available. Information received by the ABS is treated in strict confidence as required by the Census and Statistics Act 1905.

NEXT SURVEY

55 The ABS plans to conduct this survey again in June 2017.

Glossary

GLOSSARY

Actively involved

Active parental involvement refers to parents' behaviour during the activity. Actively involved parents take part in the activity with the child. For most activities, this excludes simply watching the child engaging in the activity, however transporting the child to and from sport, outdoor games or other physical activities and remaining with the child during the activity, are included.

Additional formal care or preschool required

Includes instances in which children were already attending care or preschool and parents wanted them to attend more, as well as instances in which children did not attend any care or preschool and parents wanted them to attend. Does not include instances in which parents/guardians want to change service providers but not type or quantity of service.

Approved care

Child care providers that meet the requirements of the Australian Government quality assurance system, such as having a license to operate; qualified and trained staff; and meeting health, safety and other quality standards.

Before and after school care

Care provided for school aged children before school, after school, during school holidays and on 'pupil free days'. Estimates of children's attendance at before and after school care include children who attend only before school care, only after school care, or both.

Child Care Benefit (CCB)

Assistance in the form of a payment made by the Australian Government to help with the costs of child care for families who use a child care service approved by, or registered with, the government.

Child Care Rebate (CCR)

The Child Care Rebate covers 50 per cent of out-of-pocket child care expenses for approved child care up to the maximum legislated amount per year per child. The Child Care Rebate is available to families who have used approved child care during the year, been eligible for Child Care Benefit and have passed the work, training, study test some time during the week the approved care was provided.

Cost of care

Within this publication, cost of care is reported as the net cost of care to the parents after the CCB and CCR have been deducted.

Couple family

A couple family is based on two persons who are in a couple relationship and who are usually resident in the same household. To be included in CEaCS, a couple family must also have at least one child aged 0-12 usually resident. A 'couple relationship' includes same-sex couples.

Family

Two or more persons, one of whom is at least 15 years of age, who are related by blood, marriage (registered or de facto), adoption or fostering; and who are usually resident in the same household. Only families with children aged 0-12 years are included in CEaCS.

Family day care

A type of formal care provided in the home environment of a registered carer.

Father

The male parent or guardian usually resident in the same household as the child.

Formal care

Regulated care away from the child's home. The main types of formal care are long day care, before and/or after school care, family day care and occasional care.

Full-time/part-time workers

Full-time workers are employed persons who usually work 35 hours or more a week as well as those who, although they usually work less than 35 hours a week, worked 35 hours or more during the reference week. Part-time workers are employed persons who usually work less than 35 hours a week and who did so during the reference week.

Government establishment

Includes any preschool/kindergarten conducted or managed principally by a state, territory or federal government agency.

Index of Relative Socio-economic Disadvantage (IRSD)

A Socio-Economic Indexes for Areas (SEIFA) index derived from Census variables related to disadvantage, such as low income, low educational attainment, unemployment, and dwellings without motor vehicles.

Informal care

Non-regulated care either in the child's home or elsewhere. It includes paid or unpaid care by: (step) brothers or sisters, grandparents, other relatives (including a non-resident parent), other (unrelated) people such as friends,

neighbours, nannies or babysitters and other organisations (e.g. crèche at gyms and health centres).

Informal learning

Unstructured learning activities that occur in daily life, such as reading, musical activities and physical activities.

Last week

The survey reference week. For interviews conducted between 8 and 14 June 2014, the reference week was 1 to 7 June. For interviews conducted between 15 to 21 June, the reference week was 8 to 14 June.
For interviews conducted for the additional follow up in September, the reference week was 24 to 30 August 2014.

Long day care

A centre-based form of child care service providing all-day or part-time care for children.

Mean

The value often referred to as the 'average'. The mean of a variable is calculated by summing the values of all observations in a data set and then dividing by the number of observations in the set.

Median

The value that divides the population into two equal parts.

Mother

The female parent or guardian usually resident in the same household as the child.

Multiple response

Indicates that more than one category can be chosen for a particular data item.

Non-government establishment

Includes any preschool/kindergarten conducted or managed by a non-government institution or organisation, including a Catholic school or preschool/kindergarten or an independent school or preschool/kindergarten.

Non-resident parent

A child's natural or adoptive parent who is not usually resident in the same household as the child.

Occasional care

Services usually provided at a centre on an hourly or sessional basis for short periods or at irregular intervals.

One parent family

A one parent family is based on a person who has no spouse or partner usually present in the household, but who forms a parent-child relationship with at least one child usually resident in the household. To be included in CEaCS, a one parent family must have at least one child aged 0-12 years usually resident.

Other person care

Informal care by an individual who provides care but is not a relative and is not registered under the family day care program (including friends, babysitters and nannies).

Other relative care

Informal care by relatives of the child excluding parents, (step) brothers and sisters and grandparents.

Parent/guardian

Natural, step, foster or adoptive parents are considered parents in CEaCS. A guardian is a person who has the designated responsibility for a minor child, whether or not it is a legal or informal arrangement. In this publication, when the term 'parent' is used, this includes guardians.

Preschool

A structured, play-based education program, delivered by a degree qualified teacher, primarily aimed at children in the year before they commence full-time schooling. The program may be delivered in a dedicated preschool, a long day care centre or other educational setting.

Registered care

Child care provided by persons and institutions that are registered with the Department of Human Services as registered care providers.

Remoteness

The Australian Statistical Geography Standard (ASGS) was used to define remoteness. The Remoteness Structure is described in detail in the publication Australian Statistical Geography Standard (ASGS): Volume 5 - Remoteness Structure, July 2011 (cat. no. 1270.0.55.005).

Socio-Economic Indexes for Areas (SEIFA)

A suite of indexes created from 2011 Census data. For each index, every geographic area in Australia is given a SEIFA number which shows how disadvantaged that area is compared with other areas in Australia. Each index summarises a different set of social and economic variables.

Weekly income of parents

Total gross income received from all sources by the parent or parents in the family.

Work arrangements

Arrangements such as flexible working hours, or working from home, used by employed parents to assist them to care for their children.

Abbreviations

ABBREVIATIONS

ABS	Australian Bureau of Statistics
ACT	Australian Capital Territory
ASGS	Australian Statistical Geography Standard
CCB	Child Care Benefit
CCR	Child Care Rebate (formerly known as Child Care Tax Rebate: CCTR)
CEaCS	Childhood Education and Care Survey
NECECC	National Early Childhood Education and Care Collection
ERP	Estimated Resident Population
FTB	Family Tax Benefit
IRSD	Index of Relative Socio-economic Disadvantage
LFS	Labour Force Survey
MOE	margin of error
NSW	New South Wales
NT	Northern Territory
Qld	Queensland
RSE	relative standard error
SA	South Australia
SE	standard error
SEIFA	Socio-Economic Indexes for Areas
Tas.	Tasmania
Vic.	Victoria
WA	Western Australia

Data Comparison (Appendix)

INTERPRETING THE CHILDHOOD EDUCATION AND CARE SURVEY AND THE NATIONAL EARLY CHILDHOOD EDUCATION AND CARE COLLECTION

The Childhood Education and Care Survey (CEaCS) and the National Early Childhood Education and Care Collection (NECECC) have a number of methodological differences, which lead to discrepancies between the two sets of preschool estimates. However, used appropriately, these two collections provide an opportunity for a wide range of child care and preschool analysis.

BACKGROUND

The CEaCS has collected information on childcare arrangements in Australia since 1984 (previously the Child Care Survey). In 2008, the CEaCS expanded to collect more information about early childhood education such as preschool and children's adjustment to school. To ensure that parents are referring to a preschool program, state-specific wording is used in the questionnaire to reflect the common terminology for preschool, the questions are restricted to children aged 3 to 6 years, and parents are asked to state the name of the preschool their child attended.

The NECECC was commenced in 2010, in response to the National Partnership Agreement on Early Childhood Education, and uses data provided by the Australian Government, state and territory governments and the Catholic Education Office of the Archdiocese of Canberra and Goulburn. To be in-scope of the NECECC, a service provider must be providing a structured, play-based learning program, delivered by a degree-qualified teacher, aimed at children in the year or two before they commence full-time schooling. Preschool estimates are published in Preschool Education, Australia, 2014 (cat. no. 4240.0).

INTERPRETING THE DATA

For the reasons outlined below, it is not recommended that comparisons of the preschool attendance counts reported in this publication be made with preschool attendance and enrolment counts presented in Preschool Education, Australia, 2014 (cat. no. 4240.0).

- The CEaCS is a sample survey that collects information by interview with parent or guardian, who are asked about their child's attendance at preschool. In contrast, data used by the NECECC are mainly sourced from administrative collections, which are supplemented where necessary to improve the coverage of preschool program service providers that are not otherwise captured due to funding, regulation or licensing arrangements.
- The reference periods for the two collections differ. CEaCS was conducted from 8–21 June 2014, with a small number of interviews carried out in September 2014. NECECC was collected on 1 August 2014, with a recommended reference period of 28 July – 1 August 2014. These reference dates fall into different school terms.
- The CEaCS collects counts of children who 'usually attended' or who 'attended in the week prior to the survey'. In comparison, the NECECC collection counts children attending and enrolled during the reference period.

Due to these methodological and conceptual differences between the two collections, it is recommended that the user carefully consider their data requirements to ensure choosing the most appropriate preschool estimates for their needs. For more information on CEaCS, refer to the Explanatory Notes. For more information on the NECECC, refer to Preschool Education, Australia, 2014 (cat. no. 4240.0) and National Early Childhood Education and Care Collection: Concepts, Sources and Methods, 2013 (cat. no. 4240.0.55.001).

For further information about these and related statistics, contact the National Information and Referral Service on 1300 135 070. The ABS Privacy Policy outlines how the ABS will handle any personal information that you provide to us.

Quality Declaration - Summary

QUALITY DECLARATION - SUMMARY

INSTITUTIONAL ENVIRONMENT

The Childhood Education and Care survey (CEaCS) is conducted throughout Australia every three years in June as part of the Australian Bureau of Statistics (ABS) household survey program.

In CEaCS 2014 additional follow up of just over 500 outstanding households to increase sample numbers was conducted in September 2014. These additional interviews had a reference week of 24 to 30 August 2014 rather than the 1 to 7 June or 8 to 14 June 2014 reference weeks for the June interviews. The June interviews accounted for 92% of all fully responding records. Approximately 83% of selected households were fully responding to CEaCS, resulting in 4,635 household records and 7,126 children records.

For information on the institutional environment of the Australian Bureau of Statistics (ABS), including the legislative obligations of the ABS, financing and governance arrangements, and mechanisms for scrutiny of ABS operations, please see ABS Institutional Environment.

RELEVANCE

The Childhood Education and Care survey provides information about child care arrangements and early childhood education for children aged between 0–12 years of age.

As CEaCS was conducted as a supplement to the Labour Force Survey (LFS) persons excluded from the LFS were also excluded from this survey (see Explanatory Notes of Labour Force, Australia (cat. no. 6202.0) for standard LFS exclusions). Additional exclusions from this survey were any non-residents visiting Australia (diplomatic personnel of overseas governments, members of non-Australian defence forces stationed in Australia, or non-residents otherwise visiting Australia), and residents of non-private dwellings such as hospitals, hotels and motels. Persons in all Indigenous Communities were again excluded from CEaCS in 2014.

Information collected in the survey included: usual care arrangements (types of care, duration and cost); care arrangements used in the survey reference week (types of care, duration and cost); attendance at a preschool or preschool program (usually or in the survey reference week); need for additional formal care or preschool; early childhood education and learning activities.

TIMELINESS

The ABS has been conducting similar surveys since 1969. Until 2005, these were known as the Child Care Surveys. Data from the survey are released approximately eleven months after they have been collected.

ACCURACY

The LFS is designed to provide estimates primarily for the whole of Australia and, secondly, for each state and territory.

Two types of error are possible in an estimate based on a sample survey: non-sampling error and sampling error.

Non-sampling error arises from inaccuracies in collecting, recording and processing the data. Every effort is made to minimise reporting error by the careful design of questionnaires, intensive training and supervision of interviewers, and efficient data processing procedures.

Sampling error occurs because a sample, rather than the entire population is surveyed. One measure of the likely difference resulting from not including all dwellings in the survey is given by the standard error. There are about two chances in three that a sample estimate will differ by less than one standard error from the figure that would have been obtained if all dwellings had been included in the survey and about nineteen chances in twenty that the difference will be less than two standard errors. Relative Standard Errors (RSEs) of the estimates for this survey are included in this release.

Another measure is the Margin of Error (MOE), which describes the distance from the population value of the estimate at a given confidence level, and is specified at a given level of confidence. Confidence levels typically used are 90%, 95% and 99%. For example, at the 95% confidence level the MOE indicates that there are about 19 chances in 20 that the estimate will differ by less than the specified MOE from the population value (the figure obtained if all dwellings had been enumerated). The MOEs in this publication are calculated at the 95% confidence level.

COHERENCE

The ABS seeks to maximise consistency and comparability over time by minimising changes to the survey. Sound survey practice, however, requires ongoing development and maintenance to maintain the integrity of the data and the efficiency of the collection. For changes between iterations of the survey, please refer to the Explanatory Notes. For a full list of changes made to the LFS, see Chapter 20 of Labour Statistics: Concepts, Sources and Methods, 2013 (cat. no. 6102.0.55.001) and Information Paper: Forthcoming Changes to Labour Force Statistics, Oct 2014 (cat no. 6292.0)

After each Census, population estimates are normally revised back five years to the previous Census year. As announced in the June 2012 issue of Australian Demographic Statistics (cat. no. 3101.0), intercensal error between the 2006 and 2011 Censuses was larger than normal due to improved methodologies used in the 2011 Census Post Enumeration Survey. The intercensal error analysis indicated that previous population estimates for the base

Census years were over-counted. An indicative estimate of the size of the over-count is that there should have been 240,000 fewer people at June 2006, 130,000 fewer in 2001 and 70,000 fewer in 1996. As a result, Estimated Resident Population estimates have been revised for the last 20 years rather than the usual five.

Consequently, estimates of particular populations derived from CEaCS 2014 may be lower than those published for CEaCS 2011 and previous years as the CEaCS estimates have not been revised. Therefore, comparisons of CEaCS 2014 estimates of the number of children with previous years should not be made. However, for comparable data items, comparison of rates or proportions between years is appropriate.

INTERPRETABILITY

Detailed information on the terminology, classifications and other technical aspects associated with the Childhood Education and Care Survey can be found in the relevant web pages included with this release.

ACCESSIBILITY

Tabulated data and associated RSEs are available in Excel spreadsheets which can be accessed from the Downloads tab.

Data from this survey will also be accessible in the TableBuilder environment, enabling users to create their own customised output as required. For further details, refer to the
Microdata Entry Page on the ABS website. TableBuilder for CEaCS 2014 is expected to be available mid-2015.

Data are also available on request. Note that detailed data can be subject to high relative standard errors which in some cases may result in data being confidentialised.

For further information about these or related statistics, contact the National Information and Referral Service on 1300 135 070, or email client.services@abs.gov.au. The ABS Privacy Policy outlines how the ABS will handle any personal information that you provide to us.

Data Quality (Technical Note)

TECHNICAL NOTE

RELIABILITY OF THE ESTIMATES

1 The estimates in this publication are based on information obtained from a sample survey. Any data collection may encounter factors, known as non-sampling error, which can impact on the reliability of the resulting statistics. In addition, the reliability of estimates based on sample surveys are also subject to sampling variability. That is, the estimates may differ from those that would have been produced had all persons in the population been included in the survey.

NON-SAMPLING ERROR

2 Non-sampling error may occur in any collection, whether it is based on a sample or a full count such as a census. Sources of non-sampling error include non-response, errors in reporting by respondents or recording of answers by interviewers and errors in coding and processing data. Every effort is made to reduce non-sampling error by careful design and testing of questionnaires, training and supervision of interviewers, and extensive editing and quality control procedures at all stages of data processing**.**

SAMPLING ERROR

3 Differences that arise from selecting a sample rather than conducting a population census are known as sampling errors. One measure of the likely difference is given by the standard error (SE), which indicates the extent to which an estimate might have varied by chance because only a sample of persons was included. There are about two chances in three (67%) that a sample estimate will differ by less than one SE from the number that would have been obtained if all persons had been surveyed, and about 19 chances in 20 (95%) that the difference will be less than two SEs.

4 Another measure of the likely difference is the relative standard error (RSE), which is obtained by expressing the

SE as a percentage of the estimate.

$$RSE\% = \left(\frac{SE}{estimate}\right) \times 100$$

5 RSEs for count estimates have been calculated using the Jackknife method of variance estimation. This involves the calculation of 60 'replicate' estimates based on 60 different subsamples of the obtained sample. The variability of estimates obtained from these subsamples is used to estimate the sample variability surrounding the count estimate.

6 The Excel spreadsheets in the Downloads tab contain all the tables produced for this release and the calculated RSEs for each of the estimates.

7 Only estimates (numbers or percentages) with RSEs less than 25% are considered sufficiently reliable for most analytical purposes. However, estimates with larger RSEs have been included. Estimates with an RSE in the range 25% to 50% should be used with caution while estimates with RSEs greater than 50% are considered too unreliable for general use. All cells in the Excel spreadsheets with RSEs greater than 25% contain a comment indicating the size of the RSE. These cells can be identified by a red indicator in the corner of the cell. The comment appears when the mouse pointer hovers over the cell.

8 Another measure is the Margin of Error (MOE), which shows the largest possible difference that could be between the estimate due to sampling error and what would have been produced had all persons been included in the survey with a given level of confidence. It is useful for understanding and comparing the accuracy of proportion estimates.

9 MOEs are provided for estimates at the 95% confidence level. At this level, there are 19 chances in 20 that the estimate will differ from the population value by less than the provided MOE. The 95% MOE is obtained by multiplying the SE by 1.96.

MOE = SE x 1.96

CALCULATION OF STANDARD ERROR

10 Standard errors can be calculated using the estimates (counts or percentages) and the corresponding RSEs. See What is a Standard Error and Relative Standard Error, Reliability of estimates for Labour Force data for more details.

PROPORTIONS AND PERCENTAGES

11 Proportions and percentages formed from the ratio of two estimates are also subject to sampling errors. The size of the error depends on the accuracy of both the numerator and the denominator. A formula to approximate the RSE of a proportion is given below. This formula is only valid when x is a subset of y:

$$RSE\left(\frac{x}{y}\right) \approx \sqrt{[RSE(x)]^2 - [RSE(y)]^2}$$

DIFFERENCES

12 The difference between two survey estimates (counts or percentages) can also be calculated from published estimates. Such an estimate is also subject to sampling error. The sampling error of the difference between two estimates depends on their SEs and the relationship (correlation) between them. An approximate SE of the difference between two estimates (x-y) may be calculated by the following formula:

$$SE\ (x - y) \approx \sqrt{[SE(x)]^2 + [SE(y)]^2}$$

13 While this formula will only be exact for differences between separate and uncorrelated characteristics or sub populations, it provides a good approximation for the differences likely to be of interest in this publication.

SIGNIFICANCE TESTING

14 A statistical significance test for a comparison between estimates can be performed to determine whether it is

likely that there is a difference between the corresponding population characteristics. The standard error of the difference between two corresponding estimates (x and y) can be calculated using the formula shown above in the Differences section. This standard error is then used to calculate the following test statistic:

$$\frac{|x-y|}{SE(x-y)}$$

15 If the value of this test statistic is greater than 1.96 then there is evidence, with a 95% level of confidence, of a statistically significant difference in the two populations with respect to that characteristic. Otherwise, it cannot be stated with confidence that there is a real difference between the populations with respect to that characteristic.

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